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## The perceived benefits of video-based simulation for people who stutter

G. Meredith & L. Achterbosch

*Federation University, Australia*

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### Abstract

The use of virtual worlds and video games offer exciting new avenues for the treatment of communication disorders and ongoing client support. But these new avenues need time to be envisaged, developed and rigorously evaluated. Also, perhaps the potential users themselves of such systems will need additional time to become comfortable and able to interact efficiently with them. Conceivably during this era of rapid technological advancements some basic virtual systems could be more swiftly introduced and trialled in order to complement existing therapy and support methods. A video-based simulation platform called Scenari-Aid fits this criterion. The aim of this study was to survey the perceptions of people who stutter who had used Scenari-Aid to assist them with their fluency and related anxieties. Could a simple, and relatively cheap to develop, simulation system have perceived benefits for a person who stutters and could these perceived benefits be translated beyond their practice environment? Over a six month period starting in late 2011, a 54 question online survey was made available to people who stutter and who were members of Speak Easy Australia and the McGuire Programme (Australia). To be eligible for the study you had to be over 18, have worked through a majority of the scenarios that were included in the Scenari-Aid application and have given the application more than one single attempt. It was assumed that most of the respondents would have been actively using a fluency shaping technique of some form during that time period. Questions were themed in terms of product quality, perceptions of fluency, value to therapy, effect on anxiety and product worth. Overall 37 completed responses were gathered and analysed using descriptive statistics.

The results of this study were very encouraging in terms of the perceived effects that a simple simulation system could offer a person who stutters. Broadly speaking a majority of the users of Scenari-Aid found the system intuitive to use and understand. The most encouraging results stemmed from respondent's perception of their fluency and anxiety. Users indicated that by using this simple system that they felt their levels of fluency and speech confidence increasing. In terms of anxiety a majority of the users indicated that the system helped to ease anxieties related to speaking in public. Importantly though a majority of the users indicated that the system assisted them to better manage their speech and aided with self-critiquing speech progress.

The results of this study indicate that there are perceived benefits for people who stutter to use video-based simulations to assist them with overall levels of fluency and social speaking confidence. The study also indicates that such a system could perhaps compliment conventional speech therapy and related support systems. More research is now required to investigate beyond user perceptions and to evaluate if indeed a simple video-based simulation system has real positive effects on rates of fluency, levels of anxiety and worth to conventional therapy techniques.

*Keywords:* Stuttering; Technology; Simulation; Stammering

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